# Information Services Industry Directions

# Executive Presentation

MS-1

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Notes

# INPUT

Market Research and Consultancy

Information Services Industry

15 Years in Business

100 Employees

MS-6

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Notes

# INPUT

California, New York, Washington D.C., London, Paris, Tokyo

Primary Research Emphasis

Senior Executives Experienced in Information Services

Forecast from Comprehensive Data Base

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MS-7

Notes

- Introduction
- Information Systems Environment
- Information Services Markets
- Competition
- Conclusion

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MS-11

Notes

# Information Systems

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I- 1

Notes

# Fundamental Driving Forces

*Key Business Trends:*

- Shorter product life cycles
- More customization/specialization
- Narrower market segments
- Higher impact of technology
- More competition from overseas vendors

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I- 2

Notes

# Blocking Factors

- Infrastructure gridlock
- Lack of qualified in-house personnel
- Existing applications portfolio
- Organizational response time

*Create opportunities for the information services industry*

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I- 4

Notes

# Strategic Values

- Information
- Information systems (IS)
- Information technology (IT)

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I- 5

Notes

# IS Trends

- IS to reduce costs
- IS for competitive advantage
- Mission-critical systems
- Inter-enterprise systems
- Integrated customer-oriented systems

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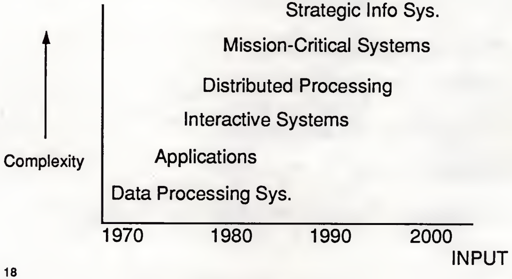
I- 9

Notes

# Complexity of the Requirement




I- 18

Notes

# Where's the Productivity?

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I- 8

Notes

# Make vs. Buy

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I- 11

Notes

# Technology Trends

- Not a driving force
- Evolutionary vs. revolutionary
- Three phases of technology application
  - Comparative advantage
  - Comparative parity
  - Comparative necessity

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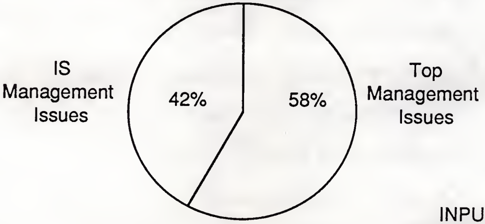
I- 27

Notes

# Implementation Inhibitors—Top Management vs. Information Systems

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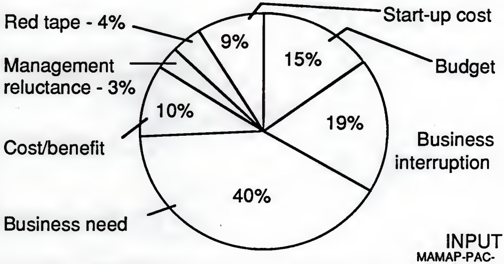
Notes

# Implementation Inhibitors
# Top Management

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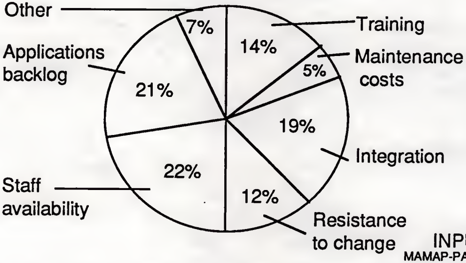
Notes

# Implementation Inhibitors Information Systems

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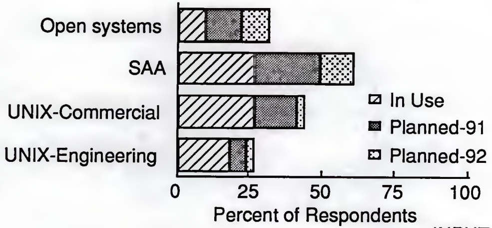
Notes

# Technology Status and Timing
# Operating Systems/Architecture

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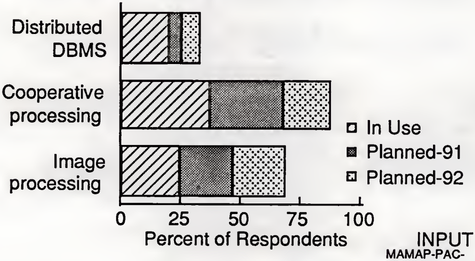
Notes

# Technology Status and Timing
# Operating Systems/Architecture

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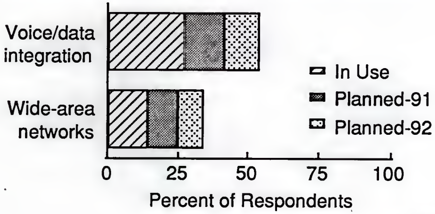
Notes

# Technology Status and Timing
# Networks/Communications

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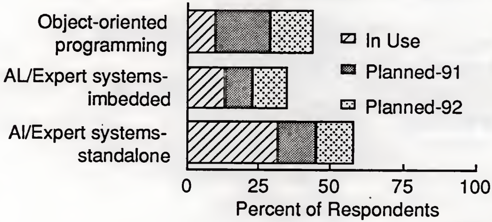
Notes

# Technology Status and Timing Application Development

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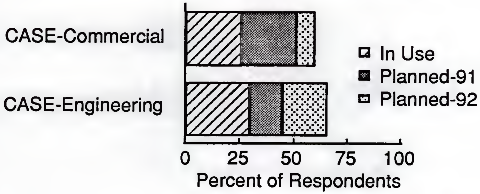
Notes

# Technology Status and Timing Application Development

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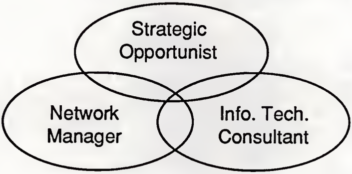
Notes

# Information Systems Executive Role in the 1990s




An Internal "Systems Integrator"

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I- 41

Notes

# IS Organization in the 1990s

Not Centralized

Not Decentralized

<u>Federated</u>

Brought together "by agreement of each party to sublimate its power to the central authority in common affairs." - Webster

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Notes

Outsourcing is the contracting of information systems (IS) functions to external vendors.

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OU-6

Notes

# Beyond Products: Service-Based Strategy

## HBR March/April 1990

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OU-2

Notes

# IS Outsourcing Areas

1. Development
2. Operation and maintenance

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OU-7

Notes

# "Outsourcing" vs. Buying Services

1980s: Services achieved recognition

1990s: Overcome prejudice against buying management services

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OU-10

Notes

# "Outsourcing" vs. Buying Services

- Greater commitment on part of buyer
- "Partnership"
- Responsibility/risk for vendors

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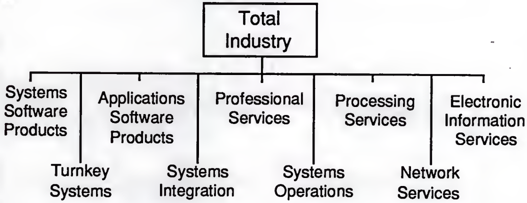
OU-11

Notes

# Information Services Industry Structure

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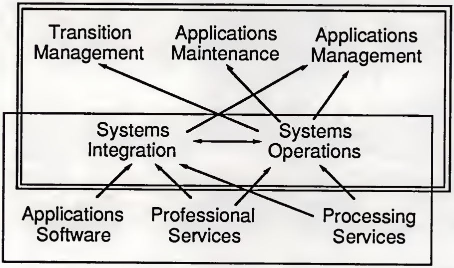
Notes

# Systems Management Opportunities

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Notes

12/13/90

# Information Services Industry Trends

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MPRE-34

Notes

# Economic Impacts and Information Systems Spending

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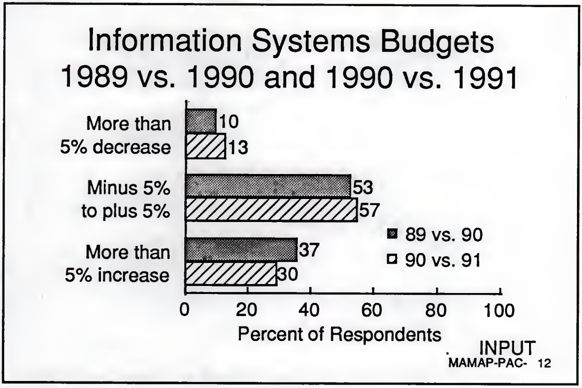
MAMAP-PAC- 11

Notes



Information Systems Budgets
1989 vs. 1990 and 1990 vs. 1991
More than 5% decrease
10
13
Minus 5% to plus 5%
53
57
More than 5% increase
37
30
89 vs. 90
90 vs. 91
0
20
40
60
80
100
Percent of Respondents
INPUT
MAMAP-PAC- 12


Notes

# Existence of Budgetary Restrictions

- 58% have restrictions in place
- 22% planning for recession
- 11% believe recession started 3rd qtr 1990
- 16% believe recession will last 6-9 months

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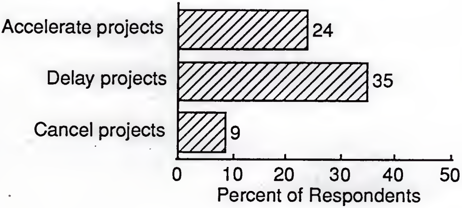
MAMAP-PAC- 13

Notes

# Recession Impacts Application Development

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MAMAP-PAC- 14

Notes

# Recession Impact on Information Services Spending

- Overall - About 40% no change
- Consulting - 42% reduce more than 10%
- Systems development - 41% reduce more than 10%

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MAMAP-PAC- 15

Notes

# Recession Impact on Information Services Spending

- Processing Services - Generally no change, some increases
- Systems Integration - 29% reduce more than 10%
- Systems Operations - No change

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MAMAP-PAC- 16

Notes

# Professional Services Vendor Views

- Recession has started
- Recession impact - First, greatest, negative
- Near-term growth (vendor response) - 10%
- Internal constraints - Significant
- Some opportunities for project speed-up

INPUT
MAMAP-PAC- 21

Notes

# Processing Services Vendor Views

- Recession has started
- Recession impact - Modest to none
- Near-term growth (vendor response) - over 10%
- Internal constraints - Modest
- Business "almost" as usual

INPUT
MAMAP-PAC- 22

Notes

# Network Services Vendor Views

- Recession has started
- Recession impact - Mixed, slowing growth
- Near-term growth (vendor response) - over 15%
- Internal constraints - Modest
- Impacts by industry - Mfg., Banking

INPUT
MAMAP-PAC- 23

Notes

# Systems Software Products Vendor Views

- Recession impact - By submode
  - Systems control - Slowed growth
  - Application development tools - Mixed
  - Operations management - None
- Near-term growth (INPUT) - 14%
- Business varies by submode

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MAMAP-PAC- 24

Notes

# Systems Operations

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SO- 1

Notes

# SO Definition

Contracting for all or a major portion of an IS operation on a long-term (more than one year) basis

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SO-73

Notes

# Types of SO

- Platform (utility) systems operations
  - Network
  - Computers
- Applications systems operations

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SO-74

Notes

# Systems Operations Driving Forces

- Increasing complexity of operations
- Scarcity and expense of required talents
- Costs and problems of systems upgrades
- Service level requirements
- Backup requirements

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SO-10

Notes

# Systems Operations Driving Forces

- Core business focus
- Business transition
- Expense reduction
- Capital preservation

INPUT

SO-10

Notes

rev. 11/26/90

# Systems Operations Driving Forces

- Systems integration creates opportunities
- Reduction of costs through sharing
  - People
  - Software
  - Computer systems
  - Networks

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SO-11

Notes

# Systems Operations and Competitive Advantage

- Operations advantages hard to achieve
- Avoidance of operations disadvantages imperative
- Advantage/disadvantage comes from applications

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SO-12

Notes

# Perceived SO Inhibitors

- Cost
- Employee loyalty
- Vendor employee turnover
- Loss of control
- Acceptance by user community

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SO-76

Notes

# SO Vendor Issues

- Account control
- Potential conflicts of interest
- Profit maximization vs. performance

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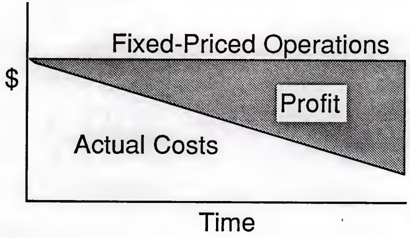
SO-77

Notes

# Systems Operations Efficiency Yields Profits

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SO-17

Notes

## Systems Operations Benefits
(Users' Viewpoint)

- Business
  - Cost reduction/savings
  - Increased business focus
  - Improved career path
  - Predictability

SO-126

INPUT

Notes

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# Systems Operations Benefits
(Users' Viewpoint)

- Technology
  - Access to better technology
  - Improved service quality
  - Improved reliability

SO-127

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Notes

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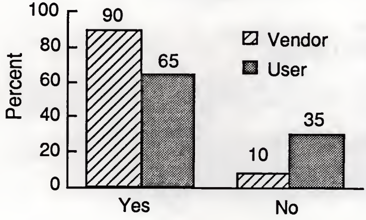
# Network Operations Management
# A Growing Trend




SO-87

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Notes

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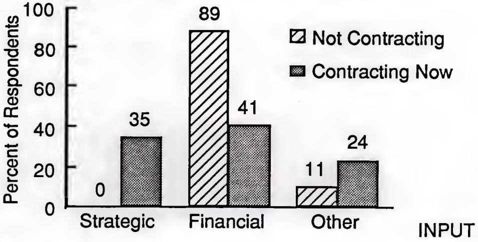
# Outsourcing Decisions Primarily Financial




SO-91

Notes

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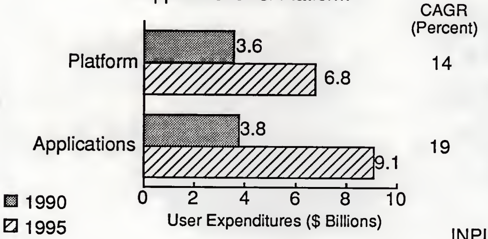
# U.S. Systems Operations Market Forecast 1990-1995

Applications vs. Platform




SO-98

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Notes

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# Competitive Trends

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CT-1

Notes

# Andersen Consulting

Management Consulting
Software Development

Software Products
- MAC PAC
- FOUNDATION
- DCS

Systems Integration

Systems Operations
- Infonet
- Sun Oil
- INPUT

SO-103

Notes

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# IBM

| | |
|---|---|
| Software Products | ASD |
| Processing Services | IIN |
| Systems Integration | FSD<br>SID |
| Applications Solutions | AS |
| Systems Operations | SSD<br>IIN |

INPUT

SO-102

Notes

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# EDS

- Industry leader
- Full range of information services
- Shared resources SO focus
- Vertical industry organization
- Aggressive growth strategy
- Leverage GM experience/resources

SO-101

INPUT

Notes

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# European Companies

- CAP Gemini Sogetti (CAP-SESA) is parent of CAP GEMINI AMERICA (CGA)
  - Close to $1 billion in 1989
  - Focus on professional services

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CT-27a

Notes

# Aerospace Subsidiaries

- Successes

1. Government
   - BCS
   - Grumman
   - MMDS
2. Specialized areas
   - TRW

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CT-25b

Notes

# Japanese Vendors

- Large companies already exist
- Close scrutiny of U.S., European markets
- Cautious approach to investment
- Alliances likely to come first
- Entering markets with Japanese clients
- Usually part of corporate family
- Attacking secondary markets

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CT-29

Notes

# Summary and Conclusions

SC-1a

INPUT

Notes

## Environment for Information Services in Year 2000

- Worldwide network infrastructure in place (ISDN)
  - Voice
  - Data
  - Text
  - Graphics

INPUT

SC-2

Notes

# Environment for Information Services in Year 2000

- Simultaneous language translation/transmission
- Active home/consumer use of videotex, data base access

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SC-3

Notes

# Environment for Information Services in Year 2000

- Image processing is routine
- Portable, desktop computers used by all professional/clerical/ managerial workers
- Standards in place for OS, graphical interfaces

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SC-4

Notes

## Environment for Information Services in Year 2000

- Fewer hardware vendors
- Solutions delivered, not products
- Software customized by nonprogrammers

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SC-5

Notes

# Conclusions

- Double-digit annual growth for all vendors
- no longer "automatic"
- Worldwide markets offer real opportunities

SC-8b

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Notes

## Information Services Market Penetration Worldwide

| | Expenditures ($ Billions) | |
|---|---|---|
| | 1989 | 1994 |
| Information Systems | 840 | 1,420 |
| Information Services* | 170 | 380 |
| Penetration | 20% | 27% |

* Less electronic information services

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MPRE-186

Notes

Potential for revolution is there.

Forecasts are based on evolution.

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OU-17

Notes

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